We claim:

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- 1. A method for measuring the oxidation-reduction potential of a solution comprising selecting an indicator dye wherein the dye changes electromagnetic absorbance over a range of oxidation-reduction potential.
- 2. The dye of claim 1 wherein said dye is selected from the group consisting of indigo carmine, thionine, potassium indigo trisulfonate, neutral red, potassium indigo tetrasulfonate, and nile blue.
 - 3. The dye of claim 2 wherein said dye is indigo carmine.
- 4. The method of claim 1 wherein the wherein the electromagnetic absorbance occurs in the region of electromagnetic spectrum selected from a group consisting of visible, near infrared, infrared and far infrared.
- 5. The method of claim 4 wherein said electromagnetic absorbance occurs in the visible region.
- 6. The method of claim 1 wherein the electromagnetic absorbance measurement wavelength is selected from the group consisting of 450 nm, 850 m, 1310 nm and 1550 nm.
- 7. The method of claim 6 wherein said electromagnetic absorbance measurement wavelength is selected from the group consisting of 450 nm and 1550nm.
- 8. A method of immobilizing said dye of claim 1 comprising, embedding said dye in a matrix.
- 9. The method of claim 8 wherein said matrix is selected from the group consisting of gelatin and carrageenan.
 - 10. A method of measuring the oxidation reduction potential of a solution, comprising; selecting an indicator dye; immobilizing said indicator dye on a matrix; contacting the immobilized dye matrix with said solution; and measuring the change in absorbance.
- 11. The method of claim 10 wherein said indicator dye is selected from the group consisting of indigo carmine, thionine, potassium indigo trisulfonate, neutral red, potassium indigo tetrasulfonate, and nile blue.
 - 12. The method of claim 11 wherein said indicator dye is indigo carmine.

- 13. The method of claim 10 wherein said matrix is selected from the group consisting of gelatin and carrageenan.
- 14. The method of claim 10 wherein the wherein the absorbance occurs in the region of spectrum selected from a group consisting of visible, near infrared, infrared and far infrared.
 - 15. The method of claim 14 wherein said absorbance occurs in the visible region.

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